

orthorhombic, bisphenoidal crystalline ketohexose. It was originally identified in the juice of mature berries from the mountain ash (*Sorbus aucuparia*) where it occurs as the result of microbial oxidation of sorbitol. It also occurs naturally in other plants. Sorbose can be synthesized by the catalytic hydrogenation of glucose to D-sorbitol. The resulting sorbitol can be oxidized by *Acetobacter xylinum* or by *Acetobacter suboxydans*.

(b) The ingredient is used or intended for indirect food use as a constituent of cotton, cotton fabrics, paper, and paperboard in contact with dry food.

(c) The ingredient migrates to food at levels not to exceed good manufacturing practice.

(d) Prior sanctions for this ingredient different from the uses established in this section do not exist or have been waived.

[43 FR 11698, Mar. 21, 1978, as amended at 48 FR 48457, Oct. 19, 1983]

## PART 189—SUBSTANCES PROHIBITED FROM USE IN HUMAN FOOD

### Subpart A—General Provisions

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189.1 Substances prohibited from use in human food.

### Subpart B—Prohibited cattle materials

189.5 Prohibited cattle materials.

### Subpart C—Substances Generally Prohibited From Direct Addition or Use as Human Food

189.110 Calamus and its derivatives.  
 189.113 Cinnamyl anthranilate.  
 189.120 Cobaltous salts and its derivatives.  
 189.130 Coumarin.  
 189.135 Cyclamate and its derivatives.  
 189.140 Diethylpyrocarbonate (DEPC).  
 189.145 Dulcin.  
 189.155 Monochloroacetic acid.  
 189.165 Nordihydroguaiaretic acid (NDGA).  
 189.175 P-4000.  
 189.180 Safrole.  
 189.190 Thiourea.  
 189.191 Chlorofluorocarbon propellants.

### Subpart D—Substances Prohibited From Indirect Addition to Human Food Through Food-Contact Surfaces

189.220 Flectol H.

189.240 Lead solders.

189.250 Mercaptoimidazoline and 2-mercaptoimidazoline.

189.280 4,4'-Methylenebis (2-chloroaniline).

189.300 Hydrogenated 4,4'-isopropylidene-diphenolphosphite ester resins.

189.301 Tin-coated lead foil capsules for wine bottles.

AUTHORITY: 21 U.S.C. 321, 342, 348, 371.

SOURCE: 42 FR 14659, Mar. 15, 1977, unless otherwise noted.

EDITORIAL NOTE: Nomenclature changes to part 189 appear at 61 FR 14482, Apr. 2, 1996, 66 FR 56035, Nov. 6, 2001, 70 FR 40880, July 15, 2005, and 70 FR 67651, Nov. 8, 2005.

## Subpart A—General Provisions

### § 189.1 Substances prohibited from use in human food.

(a) The food ingredients listed in this section have been prohibited from use in human food by the Food and Drug Administration because of a determination that they present a potential risk to the public health or have not been shown by adequate scientific data to be safe for use in human food. Use of any of these substances in violation of this section causes the food involved to be adulterated in violation of the act.

(b) This section includes only a partial list of substances prohibited from use in human food, for easy reference purposes, and is not a complete list of substances that may not lawfully be used in human food. No substance may be used in human food unless it meets all applicable requirements of the act.

(c) The Commissioner of Food and Drugs, either on his own initiative or on behalf of any interested person who has submitted a petition, may publish a proposal to establish, amend, or repeal a regulation under this section on the basis of new scientific evaluation or information. Any such petition shall include an adequate scientific basis to support the petition, pursuant to part 10 of this chapter, and will be published for comment if it contains reasonable grounds.

[42 FR 14659, Mar. 15, 1977, as amended at 54 FR 24899, June 12, 1989]